

SEAoNY Summary of Identified WTC Steel Pieces at Salvage Yards as of March 15, 2002

	Yard	Trip Date	Note Taker	Piece ID Mark	d	t <sub>w</sub>	b <sub>f</sub>	t <sub>tf</sub>	t <sub>bf</sub>	t <sub>s</sub>	~L	Remarks (description, photos/videos, coupons)
1	CM	10/10/01	-	01	See Remarks						One of 10 full-size pieces of exterior and interior columns marked during ASCE visits. These pieces were accidentally processed in salvage yard operations before being documented.	
2	CM	10/10/01	-	02	13-1/2"	2-1/2"	9"	7/8"	7/8"	15/16"	36'	One full-length perimeter column w/2 99" long spandrel plates suggesting use in sky lobby location. Piece painted with markings "ASTANEH 2 ASCE". Piece was in Astaneh's pile and was measured by David Sharp of SEAoNY on 3/11/02.
3	CM	10/10/01	-	03	13-1/2"	1-7/8"	10-1/2"	5/8"	5/8"	~3/4"	17'	One perimeter column w/portion of a spandrel plate. Stamped markings "L2042 1 144 45". Piece painted with markings "ASTANEH 3 ASCE". Piece was in Astaneh's pile and was measured by David Sharp of SEAoNY on 3/11/02.
4	CM	10/10/01	-	04	See Remarks						Same as Piece 01, above.	
5	CM	10/10/01	-	05	See Remarks						Same as Piece 01, above.	
6	CM	10/10/01	-	06	See Remarks						Same as Piece 01, above.	
7	CM	10/10/01	-	07	See Remarks						Same as Piece 01, above.	
8	CM	10/10/01	-	08	See Remarks						Same as Piece 01, above.	
9	CM	10/10/01	-	09	See Remarks						Same as Piece 01, above.	
10	CM	10/10/01	-	10	See Remarks						Same as Piece 01, above.	
11	CM	10/10/01	-	11	See Remarks						Fire-damaged piece of wide flange. Otherwise, same as Piece 01, above.	
12	CM	12/19/01	Gilsanz	AA	11"	1-3/8"	11-1/4"	9/16"	n/a	1-1/4"		(Photo:DKoutsoubis:1/30/02:#43-48) From WTC 1 or 2 with fire damage &/or floor location. Depth measurement does not include portion of web beyond bottom flange.
13	CM	12/19/01	Gilsanz	BB	11"	n/a	11-3/8"	7/16"	n/a	9/16"		(Photo:DKoutsoubis:1/30/02:#49-52). From WTC 1 or 2 with fire damage &/or floor location. Depth measurement does not include portion of web beyond bottom flange.
14	CM	12/19/01	Gilsanz	CC	10-7/8"	1-1/8"	11-1/2"	7/16"	3/8"	9/16"		(Photo:DKoutsoubis:1/30/02:#53-58) From WTC 1 or 2 with fire damage &/or floor location. Depth measurement does not include portion of web beyond bottom flange.

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15	CM	12/19/01	Gilsanz	DD	13-7/8"	1-1/8"	11-1/4"	1/4"	3/8"	1/2"		(Photo:DKoutsoubis:1/30/02:#59-62) From WTC 1 or 2 with fire damage &/or floor location.
16	CM	12/19/01	Gilsanz	EE	n/a	7/16"	n/a	~1/4"	~1/4"	7/16"		(Photo:DKoutsoubis:1/30/02:#74-82) From WTC 1 or 2 with fire damage &/or floor location.
17	CM	12/19/01	Sharp	FF	13-1/2"	1-9/16"	10-5/8"	~3/8"	7/16"	1-1/4"	25'	Piece marked 12/19/01, measured 1/30/02. (Photo:DKoutsoubis:1/30/02:#83-88) Single bow-shaped badly burned perimeter column. "Left" column from interior perspective determined by bolt splice. Primer gone.
18	CM	12/19/01	Sharp	GG	See Remarks							Piece marked 12/19/01, measured 1/30/02. Sample of a bolt splice taken from a perimeter column from sky-lobby floor as indicated by two large spandrel plates. Piece was selected for intact bolt splice only. Photo:DKoutsoubis:1/30/02:#89-97.
19	CM	12/19/01	Sharp	HH	12"	1/2"	12-1/4"	3/4"	3/4"	n/a	14'	Piece marked 12/19/01, measured 1/30/02. (Photo:DKoutsoubis:1/30/02:#98-102) Core column section with bottom and splice intact, brittle failure in midpoint.
20	CM	12/19/01	Gilsanz / Sharp	A or W14A	16"		15-1/2"	1-3/16"				WTC#7 W14 chosen for seat section response. Seat measurements taken. Seat is 8" X 7-1/2" X 3/8" thick. Stiffener is 9-5/8" X 5-1/4" X 3/8" thick. Bolt holes are 15/16". Photo by DKoutsoubis:1/30/02:#68-73.
21	CM	12/19/01	Gilsanz / Sharp	B or W14B	See Remarks							WTC#7 W14 chosen due to seat section response. Seat measurments taken. Seat is 7-1/2" X 7-1/4" X 3/8" thick. Photo by DKoutsoubis:1/30/02:#63-67.
22	CM	1/0802	Bonilla	C10	11-1/2"	3/16"	14"	3/8"	5/16"	3/8"		Chosen due to floor location. Perimeter column from WTC 1 or 2 Piece marked "88-85 L2337 451". DSharp photo.
23	CM	1/8/02	Bonilla	C11	11-1/2"	n/a	14"	1/4"	1/4"	3/8"		Chosen due to floor location. Perimeter column from WTC 1 or 2. DSharp photo.
24	CM	1/21/02	Koutsoubis	C12a	14-3/4"	5/8"	14-3/4"	1"				Chosen due to connection type. WTC#7 W14 tree column-column piece. (Photo:DKoutsoubis:1/21/02:#40-45).
	CM	1/21/02	Koutsoubis	C12b	23-5/8"	1/2"	7"	5/8"				WTC#7 W14 tree column-beam piece. Beam arm length is 4' 5-1/8" Attached to C12a. (Photo:DKoutsoubis:1/21/02:#40-45).
25	CM	1/23/02	Sharp	C13a	13-3/4"	1/4"	13-1/2"	1/4"	1/4"	3/8"	~30 ft	Chosen due to floor location. Markings on Steel: "321 B200 92 90 3T <569>". (Photo:DKoutsoubis:1/25/02:#15-19).
	CM	1/23/02	Sharp	C13b	7-5/8"	1/4"	12-1/2"	5/16"	1/4"	3/8"		Box column attached to C-13a. Possibly indicates f/corner of WTC 1 or 2. (Photo:DKoutsoubis:1/25/02:#20-25).
26	CM	1/23/02	Sharp	C14a	13-1/2"	1/4"	13-1/4"	5/16"	5/16"	3/8"		Chosen due to floor location. Perimeter column from WTC 1 or 2. (Photo:DKoutsoubis:1/25/02:#10-14) Markings "3T <570> B300 85-87".

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	CM	1/24/02	Sharp	C14b	n/a	5/16"	5-7/8"	n/a	n/a	n/a	Small portion of a box section, attached to C14a. Small 'Tin' box too.
27	CM	1/23/02	Sharp	C15	13-3/8"	1/4"	13-1/4"	1/4"	~3/8"	3/8"	Perimeter Column from WTC 1 or 2, no clearly evident markings. Chosen due to floor location. (Photo:DKoutsoubis:1/25/02:#26-30).
28	CM	1/23/02	Sharp	C16	13-3/4"	1/4"	13" +	1/4"	1/4"	3/8"	~15ft Marking on t+M43op of diaphragm plate (or top of column?) "75 1 203" Chosen due to floor location. (Photo:DKoutsoubis:1/25/02:#90-94).
29	CM	1/23/02	Sharp	C17	13-1/2"	1/4"	13-1/2"	1/4"	3/16"	3/8"	Two perimeter columns from WTC 2?. Chosen due to floor location. Markings: "92-95" "248B 224" (Photo:DKoutsoubis:1/25/02:#39-42).
30	CM	1/23/02	Sharp	C18	13-3/4"	1/4"	13-3/8"	1/4"	1/4"	3/8"	Nut and washer found in box, as well as a letter from AON "Two World Trade Center". (Photo:DKoutsoubis:1/25/02:#31-37) Markings: "+3/16"
31	CM	1/23/02	Sharp	C19	13-1/2"	1/4"	12-3/4"	1/4"	1/4"	3/8"	~15ft Single perimeter column from WTC 1 or 2. Chosen due to floor location. Fire damage. (Photo:DKoutsoubis:43-48).
32	CM	1/23/02	Sharp	C20	13-1/4"	1/4"	13-3/8"	5/16"	1/4"	3/8"	Three perimeter columns together, chosen due to floor location and some evidence of fire damage on connection. (Photo:DKoutsoubis:1/25/02:#51-55) Markings "4T <557> 91-94" Floor connection upside down?
33	CM	1/23/02	Bonilla	C21	13-1/2"	1/4"	13-1/2"	1/4"	1/4"	3/8"	Perimeter Column from WTC 1 or 2 Chosen due to floor location. (Photo:DKoutsoubis:1/25/02:#65-70).
34	CM	1/23/02	Bonilla	C22	13-1/2"	1/4"	13-1/4"	1/4"	1/4"	3/8"	Piece is marked: "PONYA 4T <69> A?? 93 - ??". Chosen due to floor location and moderate fire damage. Stamped "3145 96-93" (Photo:DKoutsoubis:1/25/02:#124-127).
35	CM	1/23/02	Bonilla	C23	13-1/2"	9/32"	13-3/8"	5/16"	1/4"	3/8"	Perimeter column section flared apart, no fire, column ends peeled apart. Chosen due to floor location.
36	CM	1/25/02	Bonilla	C24	13-1/2"	5/8"	13"	5/16"	1/4"	5/8"	(Photo:DKoutsoubis:1/25/02:#83-86) Chosen due to availability of column to column bolts being intact, 9 of 12 3/4" bolts available Depth of spandrel 8' 3". Piece marked "77-78 203".
37	CM	1/25/02	Bonilla	C25	13-1/2"	1/4"+	13"	5/16"	1/4"	3/8"	~16 ft (Photo:DKoutsoubis:1/25/02:#83-86) Chosen due to floor location. No clearly evident fire damage, single perimeter column w/2 spandrel plates Crayon markings: "A206 <69> 89-92".
38	CM	1/25/02	Sharp	C26	27-1/4"	1/2"	10-1/4"	3/4"	3/4"		(Photo:DKoutsoubis:1/25/02:#56-64) Chosen due member type, 2 1" gusset plates w/3 connecting W sections. Main section has utility cut-outs RB&W ASTM A490 bolts.
39	CM	1/25/02	Sharp	C27	12-1/4"	3/8"	10"	9/16"	9/16"		~14 ft (Photo:DKoutsoubis:1/25/02:#71-77) Chosen due member type, W12 bow-shaped.

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40	CM	1/25/02	Bonilla	C28a	13-1/2	5/16"	13"	5/16"	n/a	3/8"	(Photo:DKoutsoubis:1/25/02:#136-139) Chosen due to floor location.
	CM	1/26/02	Bonilla	C28b	7-3/8"	3/8"	12-1/4"	5/16"	n/a	3/8"	Attached to C28a, square column w/rectangular column. Intact seat, 3 or 4 bolts present.
41	CM	1/25/02	Sharp	C29	14-3/4"	1-1/8"	12-1/2"	1-3/4"	1-3/4"		(Photo:DKoutsoubis:1/25/02:#101-107) Chosen due to member type and weight, W14 'C'-shaped.
42	CM	1/25/02	Sharp	C30	16-1/2"	1-1/8"	15-7/8"	1-7/8"	1-7/8"		(Photo:DKoutsoubis:1/25/02:#108-111) Chosen due to member type and weight, W14 'C'-shaped.
43	CM	1/25/02	Koutsoubis	C31a	15-3/8"	13/16"	15-1/2"	1-1/4"	1-1/4"		(Photo:DKoutsoubis:1/25/02:#118-123) W14 Tree. Chosen due to piece type.
	CM	1/25/02	Koutsoubis	C31b	24"	1/2"	7"	5/8"	5/8"		Matching beam attached to C31a column tree.
44	CM	1/25/02	Koutsoubis	C32	14"	1-3/8"	11-1/4"	7/16"	7/16"	11/16"	(Photo:DKoutsoubis:1/25/02:#128-131) Selected by Steficek due to fire damage.
45	CM	1/25/02	Koutsoubis	C33	13-3/4"	1/2"	n/a	1/4"	n/a	7/16"	Selected by Steficek.Chosen due to piece type/original floor location. Photo by DKoutsoubis:1/25/02:#132-135.
46	CM	1/25/02	Koutsoubis	C34	14"	1"	12"	3/8"	3/8"	1/2"	Selected by Steficek. Chosen due to piece type/original floor location. Photo by DKoutsoubis:1/25/02:#140-143.
47	CM	1/25/02	Koutsoubis	C35	14"	7/8"	12-1/2"	1-1/2"	1-1/2"		(Photo:DKoutsoubis:1/25/02:#144-146) Selected by Bonilla. W section column w/ slot connections.
48	CM	1/30/02	Sharp	C40	13-1/2"	5/16"	13"	1/4"	1/4"	3/8"	(Photo:DKoutsoubis:1/30/02:#6-12) 2 joined perimeter columns chosen due to floor location. Bent in middle. Marking: "98-101 <69> 5T 101".
49	CM	1/30/02	Sharp	C41	13-1/2"	3/8"	13-1/8"	1/4"	n/a	3/8"	(Photo:DKoutsoubis:1/30/02:#13-19) 1 perimeter column with 2 areas of fire damage. Chosen due to floor location.
50	CM	1/30/02	Sharp	C42a	14-5/8"		14-5/8"	1"			(Photo:DKoutsoubis:1/30/02:#20-26) Chosen to member type, column tree W14 w/2 floor connections.
	CM	1/30/02	Sharp	C42b	23-7/8"		7"	9/16"			Beam attached to C42b column.

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51	CM	1/30/02	Sharp	C43	13"	3/8"	13-1/2"	7/16"	5/16"	3/8"	~20 ft (Photo:DKoutsoubis:1/30/02:#27-31) Chosen due to floor location. Fire damaged mangled end.
52	CM	1/30/02	Sharp	C44	12-1/8"		10"	5/8"			~13 ft (Photo:DKoutsoubis:1/30/02:#32-35) W12 X58 Core column? Markings: "<563> 59(S)".
53	CM	1/30/02	Sharp	C45	11-3/4"		12"	5/8"	3/8"		~15 ft (Photo:DKoutsoubis:1/30/02:#36-42) W12 x65 Core column? Markings: "<563> 16(S2)".
54	CM	2/4/02	Sharp	C46	13-1/2"	5/8"	12-5/8"	1/4"	3/8"	9/16"	(Photo DSharp) 3 column section from tower 2, dimensions taken from 'right' column. Chosen due to location just below impact area Tower B. Markings "PONYA 8T <569> B157-68-71" Moderate fire damage.
55	CM	2/4/02	Sharp	C47	13-1/2"	1/4"	13"	1/4"	1/4"	3/8"	~20 ft (Photo DSharp) 3 column section. Primer burned off. Rust. Webs split.
56	CM	2/4/02	Sharp	C48	13-1/2"	1/4"	13-1/4"	1/4"	1/4"	3/8"	(Photo DSharp) 2 perimeter columns from 1 or 2, fire damage on bottom.
57	CM	2/4/02	Sharp	C49	13-1/2"	1/4"	12-3/4"	1/4"	1/4"	3/8"	~12 ft (Photo DSharp) 1 perimeter column w/fire damage.
58	CM	2/4/02	Sharp	C50	13-1/2"	3/8"	13-1/8"	1/4"	1/4"	3/8"	(Photo DSharp) Folded in two. Markings "A103-8?" Piece stamped "L9863" "122-36 100".
59	CM	2/4/02	Sharp	C51	13-1/2"	3/8"	13"	1/4"	1/4"	3/8"	(Photo DSharp) 2 perimeter columns w/90 deg bend on one & 1/2 missing on the other.
60	CM	2/4/02	Sharp	C52	13-1/4"	5/16"	13-1/4"	1/4"	1/4"	3/8"	~15 ft (Photo DSharp) perimeter column, buckled at spandrel where there is fire damage Unique seat configuration detail.
61	CM	2/4/02	Bonilla	C53	n/a	n/a	n/a	n/a	n/a	n/a	Listed dimensions not applicable.Floor truss with L4" X 6-1/2" Seat. 8 L2x1-1/2 x 1/4. Bolt= 1-1/8" nom dia. Photo DSharp.
62	CM	2/6/02	Sharp	C54	13-1/2"	1/4"	13-1/2"	1/4"	1/4"	none	~4 ft (Photo DSharp) 1 3 ft piece of a perimeter column w/one plate extending ~15 ft.
63	CM	2/6/02	Sharp	C55	13-1/2"	5/16"	13-1/2"	5/16"	5/16"	none	~8 ft 1 perimeter column section. DSharp photo.
64	CM	2/13/02	Bonilla	C60	10-1/2"	1/2"	12"	3/4"			W Section 2 extreme bends. 'S'-shaped.

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65	CM	2/13/02	Bonilla	C61	10-3/4"	1/2"	12-1/4"	3/4"			W Section. Markings "150 (S) <69> 13 152W093 367". DSharp photo.
66	CM	2/13/02	Bonilla	C62	11"	1/2"	12-1/4"	5/8"			W Section. Markings "224(S) <48> 7409 351 F450" DSharp photo.
67	CM	2/13/02	Bonilla	C63	14-1/2"	3/8"	13"	1/4"	1/4"	3/8"	Perimeter column markings "97-100" Significant fire damage. 4 fasteners recovered from 'box'. 3 nuts w/bolt piece. 1 nut with threads stripped. DSharp photo.
68	CM	2/13/02	Bonilla	C64	11-1/2"+	1/4"	n/a	1/4"	n/a	3/8"	~12 ft Perimeter column with only 3 sides remaining. DSharp photo.
69	CM	2/13/02	Bonilla	C65	10-3/4"	1"	12-1/2"	1-1/2"			W Section. 'C'-shaped. Concave side w/slotted clip. Convex side has connection plate. DSharp photo.
70	CM	2/19/02	Massa	C66a	13"	3/4"	13-1/2"	1-1/4"	n/a	n/a	Column Tree -column piece. DSharp photo.
	CM	2/19/02	Massa	C66b	~14-1/2"	5/8"	14-3/4"	1"	n/a	n/a	Column tree -beam piece attached to C66a. DSharp photo.
71	CM	2/19/02	Massa	C67	~11"+	1/4"	~13-1/2"	n/a	1/4"	3/8"	Single perimeter column from WTC 1 or 2 w/spandrel plate. DSharp photo.
72	CM	2/19/02	Massa	C68	13-1/2"	7/16"	13"	1/4"	1/4"	3/8"	~16 ft 4 bolts intact at col-col bearing plate.
73	CM	2/19/02	Massa	C69	16"	3/4"	12"	1-1/2"	n/a	n/a	~7 ft Double 'T'-section bolted at web. Cracked and missing washers. DSharp photo.
74	CM	2/19/02	Massa	C70	11"	1"	12-1/2"	1-3/4"	n/a	n/a	~10 ft S'-shaped W-Section w/2 seats. DSharp photo.
75	CM	2/19/02	Massa	C71	11"	1"	12-3/4"	1-3/4"	n/a	n/a	~14 ft C'-shaped W-Section. DSharp photo.
76	CM	2/19/02	Massa	C72a	12"	3/4"	14-1/2"	1"	n/a	n/a	Column tree w/2 floor connections. Column piece markings "[6] 87-259". DSharp photo.
	CM	2/19/02	Massa	C72b	21-1/2"	~1/2"	~7"	5/8"	n/a	n/a	Column tree w/2 floor connections. Beam piece attached to C72a. DSharp photo.

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77	CM	2/19/02	Massa	C73	13-1/4"	3/8"	13-1/4"	1/4"	1/4"	3/8"	~15 ft	Perimeter column from WTC 1 or 2 w/spandrel plate. DSharp photo.
78	CM	2/19/02	Massa	C74a	12-1/2"	3/4"	14-1/2"	1"	n/a	n/a	~10 ft	Column tree — column piece attached to C72b. DSharp photo.
	CM	2/19/02	Massa	C74b	~22-1/2"	7/16"	7"	1/2"	n/a	n/a		Column tree — beam piece attached to C74a.
79	CM	2/19/02	Massa	C75	13-1/2"	7/8"	12-1/4"	5/16"	5/16"	3/8"	~15 ft	One perimeter column for WTC 1 or 2 w/spandrel plate. DSharp photo.
80	CM	2/19/02	Massa	C76	18-1/4"	5/8"	12"	2" (1"X2)	n/a	n/a	~13 ft	W-Section w/top and bottom plates splayed apart. Interm. Welds. DSharp photo.
81	CM	2/19/02	Massa	C77	13-1/2"	1/4"	13-1/2"	1/4"	1/4"	3/8"		2 perimeter columns pieces from WTC 1 or 2. Splice at spandrel. DSharp photo.
82	CM	2/19/02	Massa	C78a	12-3/4"	1-3/8"	16"	2-1/8"	n/a	n/a	~14 ft	Column tree, one floor — column piece. DSharp photo.
	CM	2/19/02	Massa	C78b	22"	7/16"	7"	5/8"	n/a	n/a		Column tree, one floor — beam piece attached to C78a. DSharp photo.
83	CM	2/19/02	Massa	C79	4"	3/8"	16"	3/4"	n/a	n/a	~14 ft	Rectangular column, core style from 1 or 2 WTC. DSharp photo."
84	CM	2/25/02	Sharp	C80		15"	7/8"	15-1/2"	1-3/8"	n/a	n/a	Perimeter column marked "603A 92-95 <51>".
85	CM	2/19/02	Massa	C81	~31-1/2"	7/8"	16-1/2"	1-5/8"	1-5/8"	n/a	12'	Photos AMassa and DSharp. Beam section painted "SAVE FEMA G". Flame cut on one end, ductile buckling on the other end.
86	CM	3/11/02	Sharp	C82	? Folded	7/16"	10"	11/16"	2"	n/a	16'	Beam section painted "SAVE FEMA H". Mechanical cut-outs, built-up bottom flange, ductile web buckling. Photo DSharp.
87	CM	3/11/02	Sharp	C83	13"	1-1/2"	34"	1-1/2"	1-1/2"	n/a	23'	Core column box section originally chosen by Astaneh, and placed in his pile. Document by David Sharp of SEAoNY for information purposes.
88	CM	3/11/02	Sharp	C84	13-1/2"	2-5/8"	9-5/8"	7/8"	7/8"	1-1/4"	36'	Piece originally selected by Astaneh and in his pile. Single full length perimeter column with 3 spandrel plates. Bolt splice suggests outer column of tree. Documented by David Sharp of SEAoNY for information purposes.

SEAoNY Summary of Identified WTC Steel Pieces at Salvage Yards as of March 15, 2002

	Yard	Trip Date	Note Taker	Piece ID Mark	d	t <sub>w</sub>	b <sub>f</sub>	t <sub>tf</sub>	t <sub>bf</sub>	t <sub>s</sub>	~L	Remarks (description, photos/videos, coupons)
89	CM	3/11/02	Sharp	C85a	12-3/4"	1-3/16"	16"	1-3/4"	1-3/4"	n/a		Piece originally selected by Astaneh and in his pile. Column tree with 9'+ floor separation. Full width welded seat. 2 floors+ in length. Documented by David Sharp of SEAoNY for information purposes. Dimensions for column section.
	CM	3/11/02	Sharp	C85b	15"	7/16"	~7"	3/4"	3/4"	n/a		Piece originally selected by Astaneh and in his pile. Beam section from C85a column tree. Documented by David Sharp of SEAoNY for information purposes.
90	CM	3/11/02	Sharp	C86	n/a24"+	1-1/2"	13"	1-1/2"	1-1/2"	n/a	3'	Small folded box section from core. Torch cut, originally chosen by Astaneh and in his pile. Documented by David Sharp of SEAoNY for information purposes.
91	CM	3/11/02	Sharp	C87	~22"	7/16"	10"	1/2"	2"	n/a	25'	Beam section with viscous damper attached. Mechanical cut-outs and built-up bottom flange.
92	CM	3/11/02	Sharp	C88	12"	1-1/2"	16"	1-1/2"	1-1/2"	n/a		Core box column w/two straps and seat, painted "SAVE PA". Also has markings "<55?>" Completely splayed apart above seat.
93	CM	3/11/02	Sharp	C89	13-1/2"	1-13/16"	10-1/4"	5/8"	5/8"	1-3/8"	36'	Two badly burned perimeter columns, full length. Spandrel plates flame cut. Markings stamped on piece: "L3 144 146 50 B215 15 12" Piece originally chosen by Astaneh and in his pile. Documented by David Sharp of SEAoNY for information purposes only.
94	CM	3/11/02	Sharp	C90	8-3/4"	3-1/4"	37"	3-1/4"	3-1/4"	n/a	36'	Core column box section originally chosen by Astaneh, and placed in his pile. Documented by David Sharp of SEAoNY for information purposes. Piece is 'S'-shaped and has cracks running along the welds in buckles areas.
95	CM	3/14/02	Sharp	C91	10-5/8"	3/4"	4-1/8"	1-3/8"	1-3/8"	n/a	14'	Beam section with built-up flanges and two seats. Probable core section floor truss connection. Splice plates on both ends.
96	CM	3/14/02	Sharp	C92	13-1/2"	~1/2"	13"	1/4"	1/4"	3/8"	15'	Single perimeter column with 2 seats. 'Outside' column from 'right' via view from building interior. (bolt splice on right).
97	CM	3/14/02	Sharp	C93	13-1/2"	5/16"	13-1/4"	1/4"	1/4"	3/8"	8'	One portion of a light construction perimeter column.
98	KB	11/20/01	Gilsanz/ Steficek		See Remarks							Portion of spandrel plate and two bolts from WTC 1 or 2. Coupon A. Photos: A-1(coupon cut location), A-2 (coupon side and top view), A-3(coupon bottom). Steficek video.
99	KB	11/20/01	Gilsanz/ Steficek		See Remarks							Coupon B of web and flange sections from perimeter column from WTC 1 or 2. Photos: B-1(coupon cut location), B-2 (coupon front), B-3(coupon perpendicular view). Steficek video
100	KB	11/20/01	Gilsanz/ Steficek		See Remarks							Coupon C of web and flange sections from perimeter column from WTC 1 or 2. Photos: C-1(coupon cut location), C-2 (coupon full view), C-3 (coupon side view). Steficek video
101	KB	12/19/01	Gilsanz	K-1	n/a	7/16"	n/a	1/4"	1/4"	3/8"		Chosen due to floor location. Piece marked "93-96".



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Yard	Trip Date	Note Taker	Piece ID Mark	d	t <sub>w</sub>	b <sub>f</sub>	t <sub>tf</sub>	t <sub>bf</sub>	t <sub>s</sub>	~L	Remarks (description, photos/videos, coupons)
102	KB	12/19/01	Gilsanz	K-2	13-3/4"	0.92"	30"	0.92"	n/a	n/a	Chosen due to fire damage, floor location.
103	KB	12/20/01	Chuliver	K10	12"	9/16"	13"	1/2"	1/4"	1/2"	Chosen due to fire damage. Photo 1-byABonilla. Coupon taken and brought to GMS. Coupon photo by AMassa.
104	KB	12/20/01	Chuliver	K11	14"	1-1/8"	11-5/8"	1/2"	n/a	1/2"	Chosen due to fire damage. Photo 2-byABonilla. Coupon taken and brought to GMS. Coupon photo by AMassa.
105	KB	12/20/01	Chuliver	K12	13-3/4"	7/16"	13"	5/8"	n/a	7/16"	Chosen due to floor location. Photo 3-byABonilla. Coupon taken and brought to GMS. Coupon photo by AMassa.
106	KB	12/20/01	Chuliver	K13	13-11/16"	1/4"	13-1/2"	1/4"	9/16"	3/8"	Chosen due to floor location and fire damage. Photo 5-byABonilla. Coupon taken and brought to GMS. Coupon photo by AMassa.
107	KB	12/20/01	Chuliver	K14	13-1/2"	1/4"	13-3/16"	3/8"	1/2"	3/8"	Chosen due to floor location and fire damage. (Photo:DKoutsoubis:12/27/02:#32-41), Photos 6-7-byABonilla. Stencil mark: floors 91-94. Coupon taken and brought to GMS. Coupon photo by AMassa.
108	KB	12/27/01	Chuliver	K15a	13-1/4"	1/4"	13-1/2"	5/16"	?	3/8"	Chosen due to floor location. Photo 4-by DSharp. Coupon taken and brought to GMS. Coupon photo by AMassa.
	KB	12/27/01	Chuliver	K15b	7-3/8"	3/8"	12-1/4"	3/8"	1/4"		Chosen due to floor location. Photo 5-by DSharp Rectangular piece attached to K15a.
109	KB	1/19/02	Koutsoubis	K16	13-7/8"	1-3/8" to 1-3/4"	11"	1/2"	3/8"	1-1/4"- 1-5/8"	Chosen due to unique Thickness variations, due to corrosion or fire? Video Sharp. Photo:DKoutsoubis:1/19/02:#1-13.
110	KB	1/19/02	Koutsoubis	K17	13-5/8"	1-1/2"	10-7/8"	1/2"	5/8"	13/16"	Chosen due to fire damage. Video by DSharp. Photos by Dkoutsoubis 1/16/02:#13-16 and 1/19/02:#14-24.
111	KB	12/27/01	Chuliver	K18	11-1/4"	3/8"	13-1/4"	1/4"	3/8"	1/4"	Chosen due to floor location. Photos by DKoutsoubis:12/27/02:#14-22 and video:12/27/01:2m6s. Coupon taken and brought to GMS. Coupon photo by AMassa.
112	KB	12/27/01	Chuliver	K19	14"	7/8"	12-1/4"	5/16"	n/a	3/4"	Chosen due to fire damage. Photos by DKoutsoubis:12/27/01:#23-27, 30-31 and video:12/27/01:1m24s. Coupon taken and brought to GMS. Coupon photo by AMassa.
113	KB	12/27/01	Koutsoubis	K20	13-1/2"	1/4+"	13	1/4"	1/4"	3/8+"	Chosen due to floor location. Photos by DKoutsoubis:12/19/01:#41-42 and 12/27/01:#1-11, and video:2m3s.
114	KB	1/18/02	Sharp	K40	11"	1/4"	13"	1/4"	1/4"	3/8"	Chosen due to floor location. Photos 59-60 (Hoy)? Marking on piece is 92-95. Also marked 252.

SEaONY Summary of Identified WTC Steel Pieces at Salvage Yards as of March 15, 2002

	Yard	Trip Date	Note Taker	Piece ID Mark	d	t <sub>w</sub>	b <sub>f</sub>	t <sub>tf</sub>	t <sub>bf</sub>	t <sub>s</sub>	~L	Remarks (description, photos/videos, coupons)
115	KB	1/18/02	Sharp	K41	13-3/8"	3/8"	13-1/2"	1/4"	1/4"	3/8"		Chosen due to floor location. Photos 57-58 (Hoy). Marking on piece is "L9901 120".
116	KB	1/19/02	Sharp	K50	See Remarks							Sample of washer failure. Piece photos by DKoutsoubis:1/30/02:#1-5. Piece cut into 3 sections and brought to GMS offices.
117	NW	11/16/01 to 1/18/02	DePaola/ NIST	NIST N-1	13-1/2"	1/2"	13"	3/8"	1/2"	1/2"	3' 8"	Perimeter column. Photo N-1 by NIST.
118	NW	11/16/01 to 1/18/02	DePaola/ NIST	NIST N-2	See Remarks							Piece is comprised of the majority of the pieces which make up a floor truss section from WTC 1 or 2. Dimensions not applicable. Photo N-2 by NIST.
119	NW	11/16/01 to 1/18/02	DePaola/ NIST	NIST N-3	13-1/2"	5/16"	9-1/2"	1/2"			87"	Perimeter column. Photo N-3 by NIST.
120	NW	11/16/01 to 1/18/02	DePaola/ NIST	NIST N-4	13"	3/8"	13"	3/8"	3/8"	9/16"	16'	Perimeter column. Photo N-4 by NIST.
121	NW	11/16/01 to 1/18/02	DePaola/ NIST	NIST N-5	1-3/8"	See Remarks						4' 4" X 11" section of a bolted connection area (spandrel splice) from a perimeter column. Photo N-5 by NIST.
122	NW	11/16/01 to 1/18/02	DePaola/ NIST	NIST N-6	13-1/4"	3/8"	14"	1/2"	1/2"	9/16"	4' 6"	Perimeter column. Photo N-6 by NIST.
123	NW	2/8/02	Koutsoubis	M2	13-1/4"	5/16"	13-1/4"	1/4"	3/8"	3/8"		(Photo:DKoutsoubis:2/8/02:13,15-21) Evidence of burning.
124	NW	2/8/02	Koutsoubis	M3	13-3/4"	5/16"	13-1/2"	1/4"	1/4"	5/16"		(Photo:DKoutsoubis:2/8/02:23-28)(Photo:DKoutsoubis:2/14/02:17-21) Evidence of burning.
125	NW	2/8/02	Hoy	M4	13-1/4"	1/4"	13-1/4"	1/4"	1/4"	3/8"		(Photo:DKoutsoubis:2/8/02:30-34) "Mushed" end.
126	NW	2/8/02	Koutsoubis	M5	14"	1/4"	13-1/2"(*)	1/4"	1/4"	3/8"		(Photo:DKoutsoubis:2/8/02:39-45) Thin spandrel. "d" dimension is approx.
127	NW	2/8/02	Koutsoubis	M6	13-1/2"	1/4"	13-1/4"	1/4"	1/4"	3/8"		(Photo:DKoutsoubis:2/8/02:59-63) Thin spandrel.
128	NW	2/8/02	Hoy	M7	13-1/2"	5/16"	13-1/8"	1/4"	1/4"	3/8"		(Photo:DKoutsoubis:2/8/02:67-72) Evidence of burning.

SEaONY Summary of Identified WTC Steel Pieces at Salvage Yards as of March 15, 2002

Yard	Trip Date	Note Taker	Piece ID Mark	d	t <sub>w</sub>	b <sub>f</sub>	t <sub>tf</sub>	t <sub>bf</sub>	t <sub>s</sub>	~L	Remarks (description, photos/videos, coupons)
129	NW	2/8/02	Koutsoubis	M8	13-1/2"	1/4"	13-1/4"	1/4"	1/4"	3/8"	(Photo:DKoutsoubis:2/8/02:73-80) Thin spandrel.
130	NW	2/8/02	Koutsoubis	M9	13-1/2"	1/4"	13-1/2"	1/4"	1/4"	3/8"	(Photo:DKoutsoubis:2/8/02:81-84) Beat up. "tw" dimension is approx.
131	NW	2/8/02	Koutsoubis	M10	13-3/8"	5/16"	13-1/2"	1/4"	1/4"	3/8"	(Photo:DKoutsoubis:2/8/02:85-92) Burnt on inside.
132	NW	2/8/02	Koutsoubis	M11a	15-1/2"	3/4"	15-3/4"	1-1/2"			W14 Tree Column- column piece. Photos by DKoutsoubis:2/8/02:93-105.
	NW	2/9/02	Koutsoubis	M11b	23-5/8"	5/16"	7"	5/8"			Attached to M11a - beam piece of W14 tree column. Photos by DKoutsoubis:2/8/02:93-105.
133	NW	2/8/02	Koutsoubis	M12	~30"	~1/2"	10-1/2"	11/16"			Severely burnt & twisted wide-flange girder. Studs welded on the top flange. Photos by DKoutsoubis:2/8/02:106-114.
134	NW	2/25/02	Sharp	M13	13-1/2"	1/4"	13-1/2"	1/4"	1/4"	3/8"	Two perimeter columns folded in half Stamped markings "06 92 95 2430". DSharp Photo.
135	NW	2/25/02	Sharp	M14	13-1/2"	1/4"	13-1/2"	5/16"	5/16"	3/8"	Spandrel markings "??? 5T <63> ?? -99-102" Piece is stamped "99-102 3311 102" DSharp photo.
136	NW	2/25/02	Sharp	M15	13-1/2"	5/16"	13-1/2"	1/4"	1/4"	3/8"	Spandrel markings "PONYA A115-89-92 6T" Stamped markings: "89 92 L2616 115" and "L6973 1? 125 36 55".
137	NW	3/1/02	Sharp	M16	13-1/2"	9/32"	13-1/4"	1/4"	1/4"	3/8"	3 perimeter columns from WTC 1 Spandrel plate markings "PONYA A148 99-102 <6?>" Piece stamped "102 99" Two small clips on damper.
138	NW	3/1/02	Sharp	M17	~22"	7/16"	12"	3/4"	1-1/8"	n/a	40' Unique piece with portion of viscous damper attached, also straps and connections. Cut-outs for mechanical. Built-up flange. Marked "163 (9) <62>".
139	FK	12/6/01	Fahey/Rosa	A	36"	1/2"	10-1/2"	2-1/4"			19'-11" Beam - Appeared heat affected. Flange coupon (A-1) & web coupon (A-2) marked 7'+/- from end of beam. Photo #'s 141, 142 & 475.
140	FK	12/6/01	Fahey/Rosa	B	36"	13/16"	12"	1-1/4"			4'-10" Beam - Puncture. Web coupon (B-1) marked. Photo #'s 139, 140, 143 & 476.
141	FK	12/6/01	Fahey/Rosa	C	30-1/4"	1"	10"	2-1/2"			14'-5" Beam - Appeared heat affected. Web coupon (C-1) marked. Photo #'s 135, 137, 138, 144 & 477.

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142	FK	12/6/01	Fahey/Rosa	D	21-1/4"	1"	17-7/8"	1-9/16"			Column - Puncture. Photo #'s 482 & 483.
143	FK	12/6/01	Fahey/Rosa	E	12-5/8"	3/4"	12-3/8"	1-1/8"			Column - Appeared heat affected. Web coupon (E-1) marked. Photo #'s 488 & 491.
144	FK	12/6/01	Fahey/Rosa	F	38"	3/4"	7"	1-3/4"			Beam - Appeared heat affected. Web coupon (F-1) marked. Photo #'s 490 & 491.
145	FK	12/19/01	Fahey/McConnell	G	35-1/2"	7/8"	16-3/8"	1-9/16"			Beam. Coupon (G-1) marked on moment splice plate. Photo #'s 125, 128 & 129.
146	FK	12/19/01	Fahey/McConnell	H	21"+/-	1/2"	10"	3/4"		18'-9"	Beam. Web coupon (H-1) marked. Photo #'s 131, 132 & 133.
147	FK	12/19/01	Fahey/McConnell	I	7-5/16"	3/4"	15-11/16"	1-1/16"			Brace - (2) WT's back to back - Appeared heat affected. Coupon (I-1) marked on gusset plate at end of brace. Photo #'s 145, 148, 149 & 150.
148	FK	12/19/01	Fahey/McConnell	J	27"+/-	1/2"	10"+/-	1/2"			Beam. Web coupon (J-1) marked. Photo #'s 155, 156 & 157.
149	FK	12/19/01	Fahey/McConnell	K	24-7/8"	3/4"	7"	1-1/2"			Beam. Web coupon (K-1) marked. Photo # 165.
150	GZ	~11/27/01	Eschenasy	-							Connection coupon recovered from WTC#5, 8th floor, and brought to GMS offices. Web tear-out at bolts. Coupon photo by AMassa. Sketch with dimensions and photo in this WTC BPS report, Fig. 4-22.
151	GZ	~11/27/01	Eschenasy	-							Connection coupon recovered from WTC#5, 7th floor, and brought to GMS offices. Web tear-out at bolts. Coupon photo by AMassa. Sketch with dimensions and photo in this WTC BPS report, Fig. 4-22.
152	GZ	~11/27/01	Eschenasy	-							Connection coupon recovered from WTC#5, 6th floor, and brought to GMS offices. Web tear-out at bolts. Coupon photo by AMassa. Sketch with dimensions and photo in this WTC BPS report, Fig. 4-22.
153	GZ	~11/27/01	Eschenasy	-							Connection coupon recovered from WTC#5, 6th floor, and brought to GMS offices. Web tear-out at bolts. Coupon photo by AMassa. Sketch with dimensions and photo in this WTC BPS report, Fig. 4-22.
154	GZ	~11/27/01	Eschenasy	-							Connection coupon recovered from WTC#5, 8th floor, and brought to GMS offices. Plate tear-out at bolts. Coupon photo by AMassa. Sketch with dimensions and photo in this WTC BPS report, Fig. 4-22.
155	GZ	~11/27/01	Eschenasy	-							Connection coupon recovered from WTC#5, 7th floor, and brought to GMS offices. Connection web-plate or splice-block shear. Coupon photo by AMassa. Sketch with dimensions and photo in this WTC BPS report, Fig. 4-22.

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